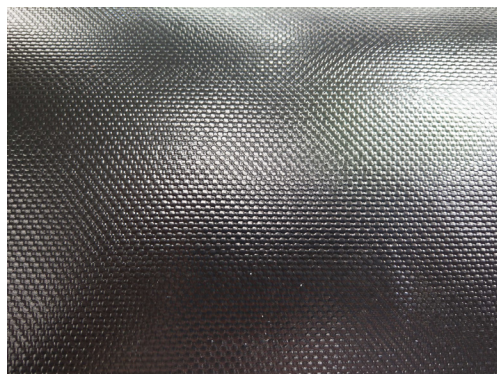


Specialist Geomembranes

Technical Data Sheet

Landflex™ 100ES

The information herein is based upon data obtained by the manufacturer and is considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data. This information is furnished upon the condition that the person receiving it shall evaluate its suitability for the specific application.



Example Application:

Encapsulated Polystyrene Blocks for use as a light-weight fill in part of a railway platform construction

| Characteristic | Test Method | Typical Properties (indicative) |
|--|---|---------------------------------|
| Fabric | - | 100% PES / 1100dtex |
| Total Weight | ASTM D751 | 1000g / m ² |
| Thickness | ASTM D751 | 0.90mm |
| Lacquering | - | 1 / 1 |
| Embossing | - | DP |
| Breaking Strength (strip method) Warp | ASTM D751 | 3500N |
| Breaking Strength (strip method) Weft | ASTM D751 | 3500N |
| Breaking Yield Strength (grab tensile) Warp | ASTM D751 | 3000N |
| Breaking Yield Strength (grab tensile) Weft | ASTM D751 | 3000N |
| Bonded Seam Strength Warp | ASTM D751 modified by NSF 54 | 3000N |
| Bonded Seam Strength Weft | ASTM D751 modified by NSF 54 | 3000N |
| Tear Strength (tongue tear) Warp | ASTM D751 | 500N |
| Tear Strength (tongue tear) Weft | ASTM D751 | 400N |
| Adhesion Ply (film tearing 2"/min) | ASTM D413 | 130N / 5cm |
| Adhesion (heat sealed seam)(dielectric weld) | ASTM D751 | 150N / 5cm |
| Abrasion (cy before fabric exposure) | 5306 Tabier Fed. Std. 191A H 18 Wheel 1000G | 2000cy |
| Abrasion (max weight loss) | 5306 Tabier Fed. Std. 191A H 18 Wheel 1000G | 50mg / 100cy |
| Puncture Resistance | ASTM D4833 | 1150N |
| Bursting Strength (ball tip) | ASTM D751 | 2950N |
| Low Temperature (4hrs - 1/8" Mandrel) | ASTM D2136 | -35C / -30F No Cracking |



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Specialist Geomembranes



Landflex™ 100ES

| Characteristic | Test Method | Typical Properties (indicative) |
|---|------------------------------------|------------------------------------|
| Dimensional Stability (100C - 1hr) Warp | ASTM D1204 | <1% |
| Dimensional Stability (100C - 1hr) Weft | ASTM D1204 | <1% |
| Hydrostatic Resistance | ASTM D751-A | >540N / cm ² / >8000psi |
| Weathering Resistance. No appreciable changes or stiffening / cracking of coating | Carbon ARC / Atlas Weather-o-Meter | 8000hrs |
| Water Absorption (7 days - 21C) | ASTM D471-12 | <0.07 kg/m ² |
| Coefficient of Thermal Expansion / Contraction | ASTM D696 | <1.8 x 10 ⁻⁵ cm / C |

Chemical Resistance

A: Little to minor effect, B: Minor to moderate effect, X: Not recommended, D: No data available

| | | | | | |
|------------------------------|---|---------------------------------|---|-----------------------------|---|
| Acetic Acid 5% | A | Kerosene | A | Phosphoric Acid 100% | X |
| Ammonium Phosphate | A | Magnesium Chloride | A | Phthalate Plasticiser (DOP) | X |
| Ammonium Hydroxide | A | Magnesium Hydroxide | A | Sodium Acetate Solutions | A |
| Ammonium Sulphate | A | Methanol | A | Sodium Bisulphate Solution | A |
| Antifreeze (Ethylene Glycol) | A | Mineral Spirits | A | Sodium Phosphate | A |
| Benzene | X | Nitric Acid 5% | A | Sodium Hydroxide 60% | A |
| Butanone | A | Nitric Acid 50% | X | Sulphuric Acid 50% | A |
| Calcium Chloride Solution | A | Oil: ASTM type 3 | A | Toluene | X |
| Calcium Hydroxide | A | Oil: Animal | A | Turpentine | A |
| Chlorine Solution 20% | A | Oil: Vegetable | A | Vinegar | A |
| Clorox (Bleaching Agent) | A | Oil: Hydraulic, Petroleum | A | Water - Potable 23C | A |
| Diesel | A | Oil: Hydraulic, Phosphate ester | X | Water - Sea 23C | A |
| Ethanol | A | Oil: Corn | A | Water - Salt 25% 23C | B |
| Ethyl Acetate | X | Oil: Crude | A | Xylene | X |
| Fertiliser Solution | A | Oil: Raw Linseed | A | Zinc Chloride | A |
| Glycerine | A | Oil: SAE-30 | A | | |
| Glycol | A | Oil: Transformer | A | | |
| Hydrochloric Acid HCL 50% | A | Perchloroethylene | X | | |
| Hydrofluoric Acid HF 5% | A | Phenol | X | | |
| Hydrofluoric Acid HF 50% | A | Phenol Formaldehyde | B | | |
| Isopropyl Alcohol | A | Phosphoric Acid 50% | A | | |



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